CLAIMS

1. A compound based on hyaluronic acid, wherein alcohol groups of hyaluronic acid are esterified with rhein, as such or in derived form, or a salt thereof.

2. The compound according to Claim 1, wherein rhein esterifies at least 5 % of the esterifiable alcohol groups of hyaluronic acid.

3.The compound according to Claim 2, wherein rhein esterifies from 5 % to 50 % of the esterifiable alcohol groups of hyaluronic acid.

4. The compound according to Claim 3, wherein rhein esterifies from 5 % to 20 % of the esterifiable alcohol groups of hyaluronic acid.

5. The compound according to Claim 4, wherein rhein esterifies 10 % of the esterifiable alcohol groups of hyaluronic acid.

6. Sodium salt of the compound according to anyone of Claims 1 to 5.

7. A process for preparing a compound or a salt thereof according to anyone of Claims 1 to 6, which comprises reacting acid chloride of rhein, as such or in derived form, with hyaluronic acid.

8. The process according to Claim 7, wherein the acid chloride of rhein and the hyaluronic acid are in an amount such that a percentage ratio between the mmol of acid chloride of rhein and the meq. of the esterifiable alcohol units of hyaluronic acid is at least 5 %.

9. The process according to Claim 8, wherein said percentage ratio ranges from 5 % to 50 %.

10. The process according to Claim 9, wherein said percentage ratio ranges from 5 % to 20 %.

11. The process according to Claim 10, wherein said percentage ratio is 10 %.

12. The process according to anyone of Claims 7 to 11, which comprises the following steps:

a) preparing a suspension of hyaluronic acid in an aprotic non-polar solvent;

b) adding acid chloride of rhein dissolved in an aprotic non-polar solvent and a hydrogen ion acceptor;

c) leaving the mixture to stir at reflux for a time that is sufficient for the esterification reaction to take place; and

d) evaporating off the solvent.

13. The process according to Claim 12, wherein said aprotic non-polar solvent of step a) is cyclohexane.

14. The process according to Claim 12 or 13, wherein in step b), said hydrogen ion acceptor is NEt_3.

15. The process according to anyone of Claims 12 to 14, wherein in step c), the reaction is left at reflux for at least 20 hours.

16. The process according to anyone of Claims 7 to 15, in which the acid chloride of rhein is obtained by means of a process comprising the following steps:

a') preparing a suspension of rhein in an aprotic non-polar solvent;

b') adding an amount of $SOCl_2$ so as to obtain a molar ratio between $SOCl_2$ and rhein of greater than 10;

c') leaving the reaction to stir at reflux in an inert atmosphere for a time that is sufficient for the rhein acid chloride to form; and

d') removing the solvent and the excess of unreacted $SOCl_2$ by distillation.

17. The process according to Claim 16, wherein said aprotic non-polar solvent of step a') is a chloride solvent.

18. The process according to Claim 17, wherein said chloride solvent is CH_2Cl_2.

19. The process according to anyone of Claims 16 to 18, wherein in step c'), the reaction is left at reflux for at least 3 hours.

20. The process according to anyone of Claims 7 to 19, which further comprises a final step of purification.

21. The process according to Claim 20, wherein said purification step is carried out using a dialysis membrane.

22. A pharmaceutical composition comprising the compound or a salt thereof according to anyone of Claims 1 to 6 in combination with suitable excipients and/or diluents.

23. The pharmaceutical composition according to Claim 22, which has a formulation suitable for loco-regional administration.

24. The pharmaceutical composition according to Claim 23, which is suitable for administration via intraarticular infiltration.

25. The pharmaceutical composition according to Claim 23, which is suitable for ophthalmic administration.

26. The pharmaceutical composition according to Claim 23, which is suitable for topical administration.

27. The pharmaceutical composition according to anyone of Claims 22 to 26, in the form of an aqueous dispersion.

28.The pharmaceutical composition according to Claim 27, wherein said dispersion is in a buffer solution having a pH of 7.4.

29. The pharmaceutical composition according to Claim 27 or 28, wherein the compound in a concentration ranging from 0.1 % to 2 % w/v.

30. The pharmaceutical composition according to Claim 29, wherein the compound is in a concentration of 1 % w/v.

31. A medicinal product for human or veterinary use, formed by a pharmaceutical composition according to anyone of Claims 22 to 30.

32. A medical device for human or veterinary use, formed by a pharmaceutical composition according to anyone of Claims 22 to 30.

33. A use of a compound or a salt thereof according to anyone of Claims 1 to 6 for preparing a medicament for treating inflammatory diseases.

34. The use according to Claim 33, wherein said inflammatory diseases are inflammatory diseases of the joints.

35. A use of a compound or a salt thereof according to anyone of Claims 1 to 6 for preparing a medicament for tissue repair, in which said tissue is cartilage or skin.

36. A use of a compound or a salt thereof according to anyone of Claims 1 to 6 for preparing biomaterials.